DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-019523 Address: 333 Burma Road **Date Inspected:** 24-Jan-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Oiu Wen **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** OBG

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 14, OBG 13AW (NWIT # 08276)

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

SEG3013F-140, 128

SEG3013D-191, 192

SEG3013B-224, 319

SEG3013M-256~259

SEG3013P-276

SEG3013R-220

SEG3013AA-106

This Quality Assurance (QA) Inspector observed the following work in progress:

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Bay 14

OBG Seg 14W:

Repair welding of weld joint no: SEG3020E-056 [Bottom Plate (BP) 3093A to Floor beam (FB) 3343A, complete joint penetration (CJP) weld at panel point (PP) 128.3]. The welder is identified as 066398 and was observed welding in the 2G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-2G(2F)-FCM-Repair. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2734 Rev-1.

Repair welding of weld joint no: SEG3020BB-010 [Vertical Shear Plate, Sub Assembly (SA) SA3444A to Bottom Plate (BP) 3088A, complete joint penetration (CJP) weld]. The welder is identified as 067949 and was observed welding in the 2G position. Welding process was identified as Flux Cored Arc Welding (FCAW). ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: 345-FCAW-2G(2F)-ESAB-Repair-FCM. Repair welding was done as per Welding Repair Report (WRR): B-WR 20146 Rev-0.

Repair welding of weld joint no: SEG3020BB-028 [Vertical Shear Plate, Sub Assembly (SA) SA3446A to Bottom Plate (BP) 3088A, complete joint penetration (CJP) weld]. The welder is identified as 066038 and was observed welding in the 2G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-2G(2F)-FCM-Repair. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2752 Rev-0.

Repair welding of weld joint no: SEG3020BB-001 [Vertical Shear Plate, Sub Assembly (SA) SA3442A to Bottom Plate (BP) 3087A, complete joint penetration (CJP) weld]. The welder is identified as 067942 and was observed welding in the 2G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-2G(2F)-FCM-Repair. Repair welding was done as per Welding Repair Report (WRR): B-WR 20146 Rev-0.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020W-081 [Floor Beam (FB) 3317A to Edge Beam (EB) 3065A, CJP weld at panel point (PP) 125]. The welder is identified as 066236 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Zhu Lin. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or

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remedial efforts please contact Eric Tsang: 15000422372, who represents the Office of Structural Materials for your project.

| Inspected By: | Gaikwad,Umesh | Quality Assurance Inspector |
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| Reviewed By: | Peterson,Art | QA Reviewer |